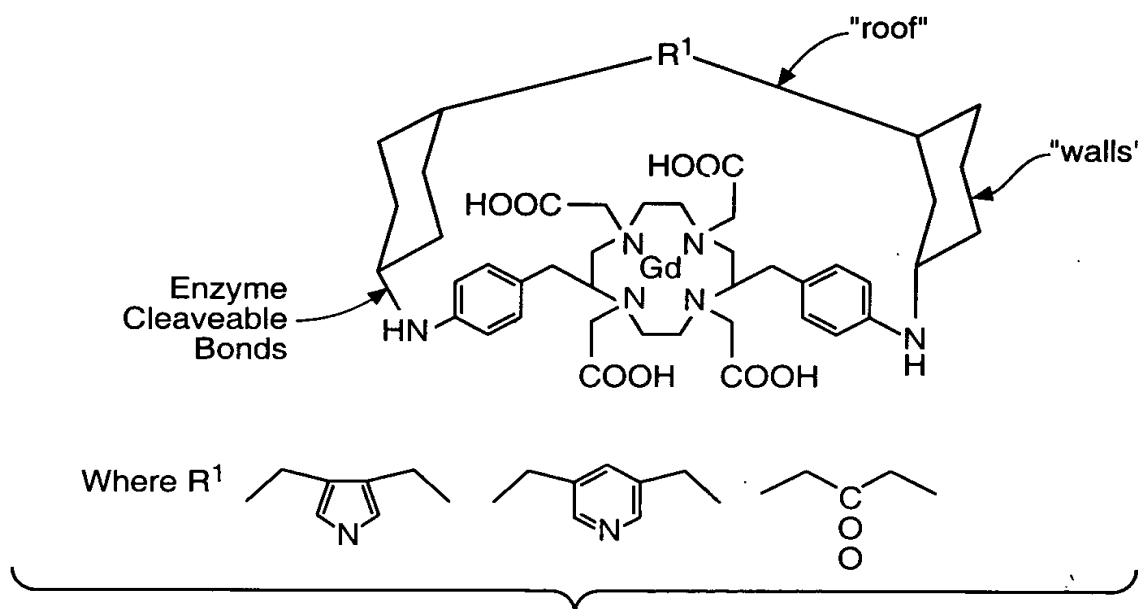
**FIG. 1****FIG. 2**

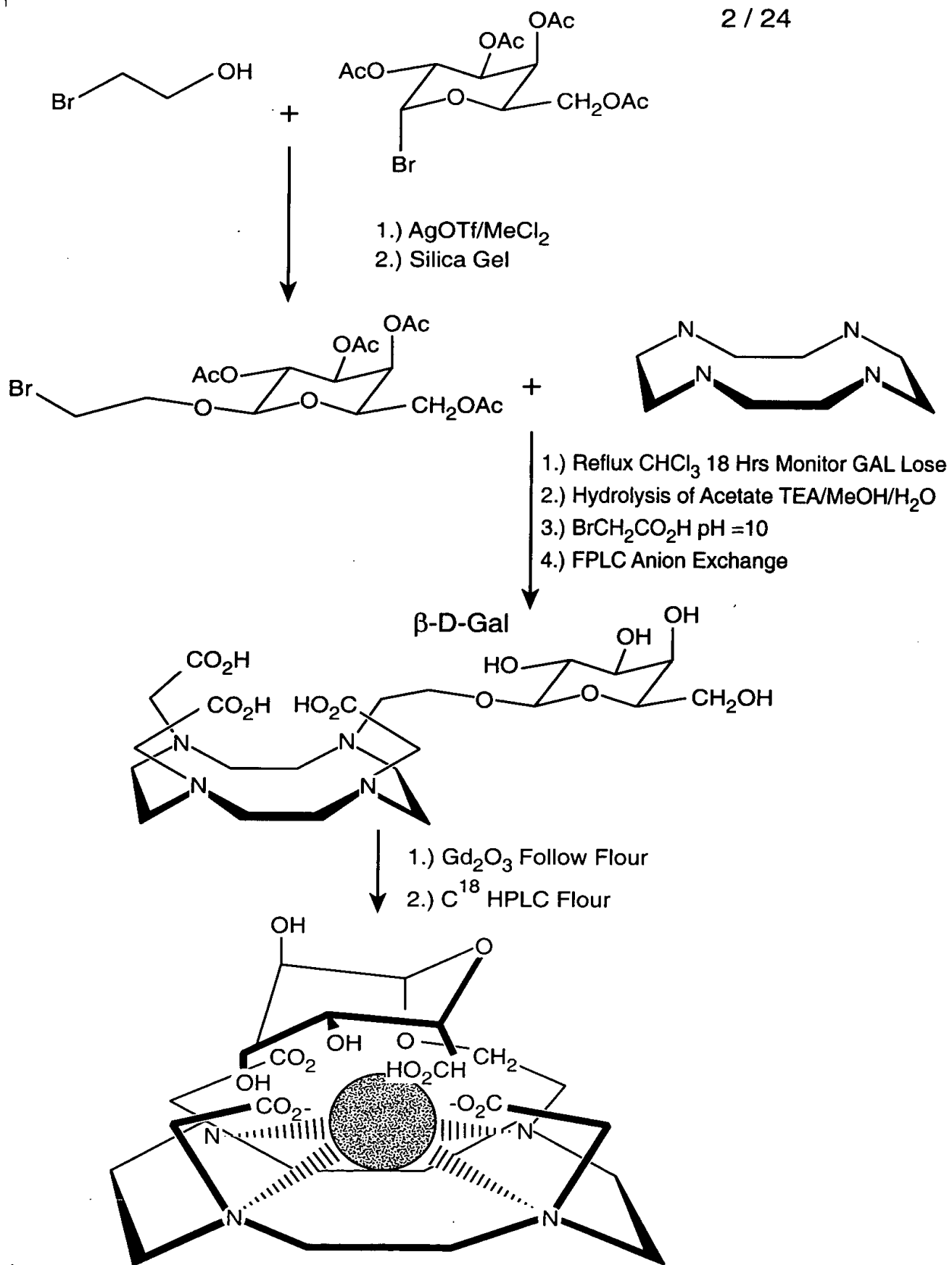
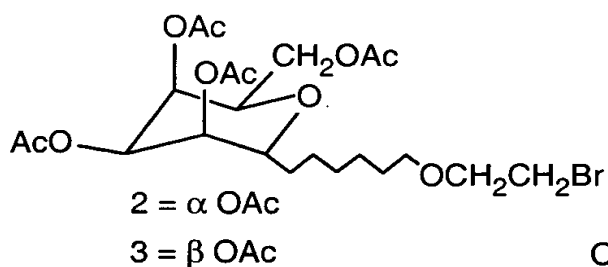


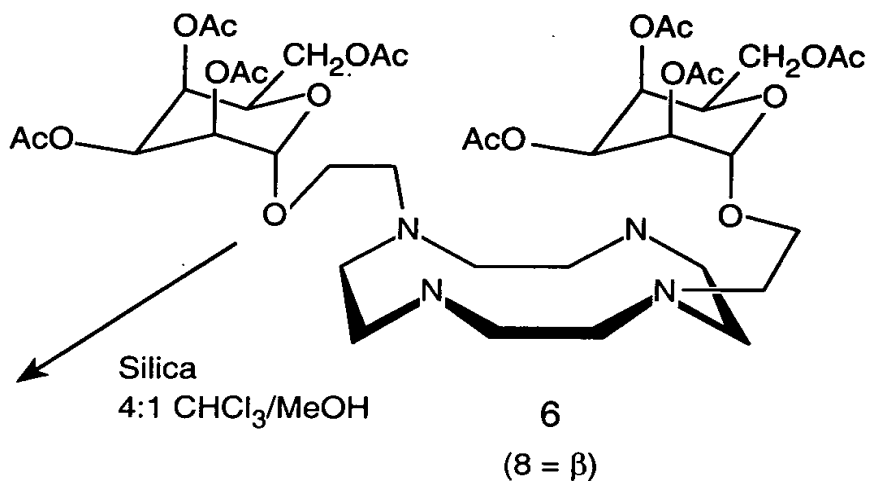
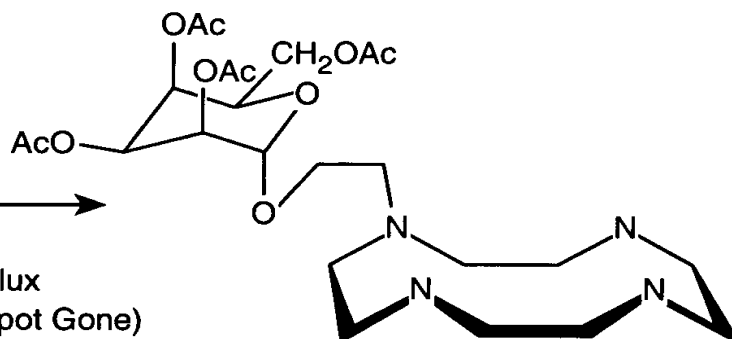
FIG._3

3 / 24



1 + 2

CHCl_3
 48 Hrs Reflux
 T.L.C. (2 Spot Gone)



~2:1 6:5

Silica
 4:1 $\text{CHCl}_3/\text{MeOH}$

8

- 1.) Hydrolysis Of Acetate
TCA/MeOH / H_2O
- 2.) $\text{BrCH}_2\text{CO}_2\text{H}$ pH = 10
- 3.) FPLC Cation Exchange
pH = 2 Acetic Acid Gradient

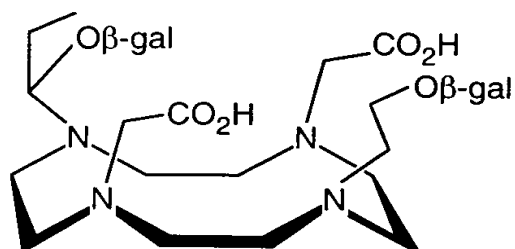


FIG. 4

+

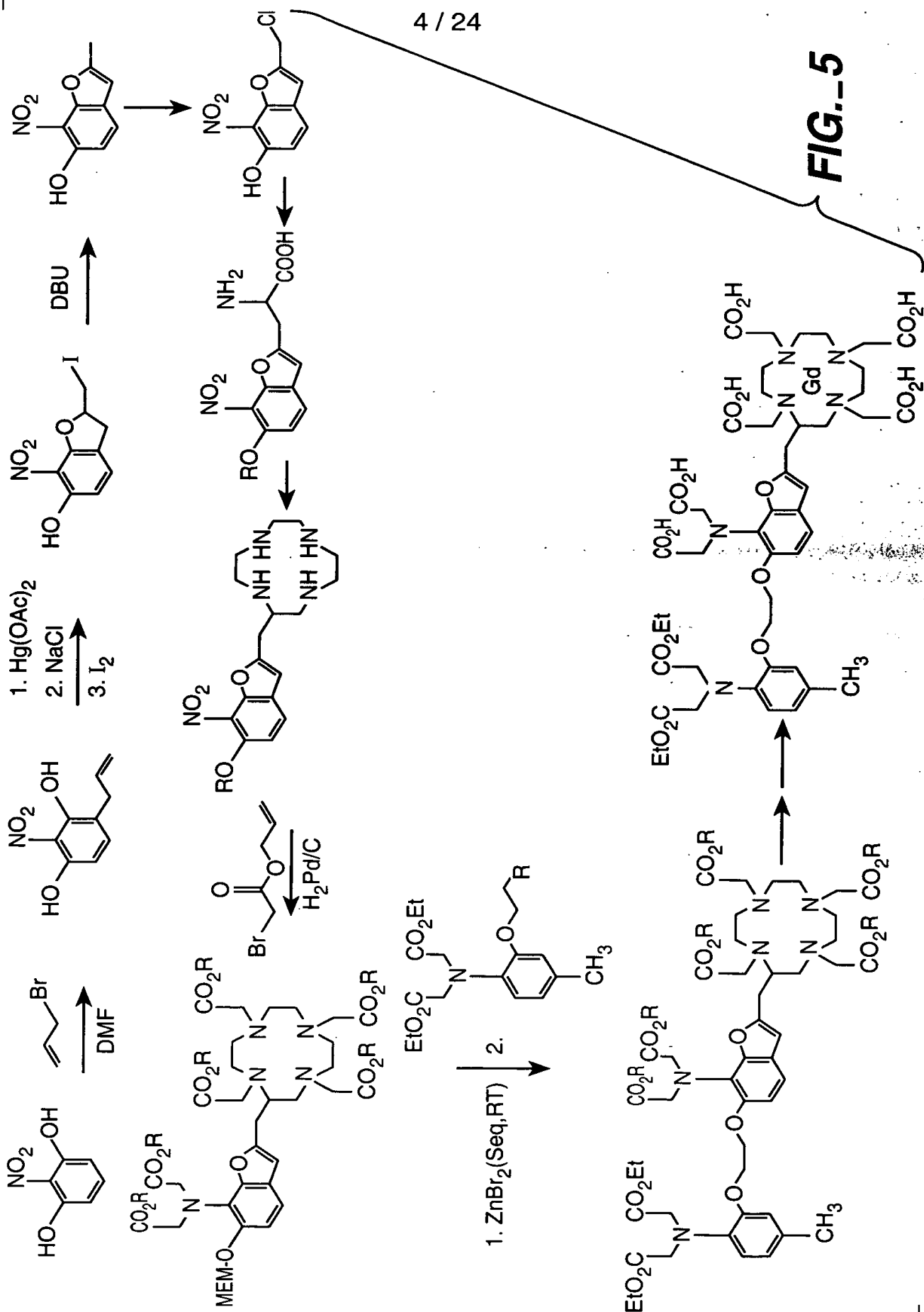
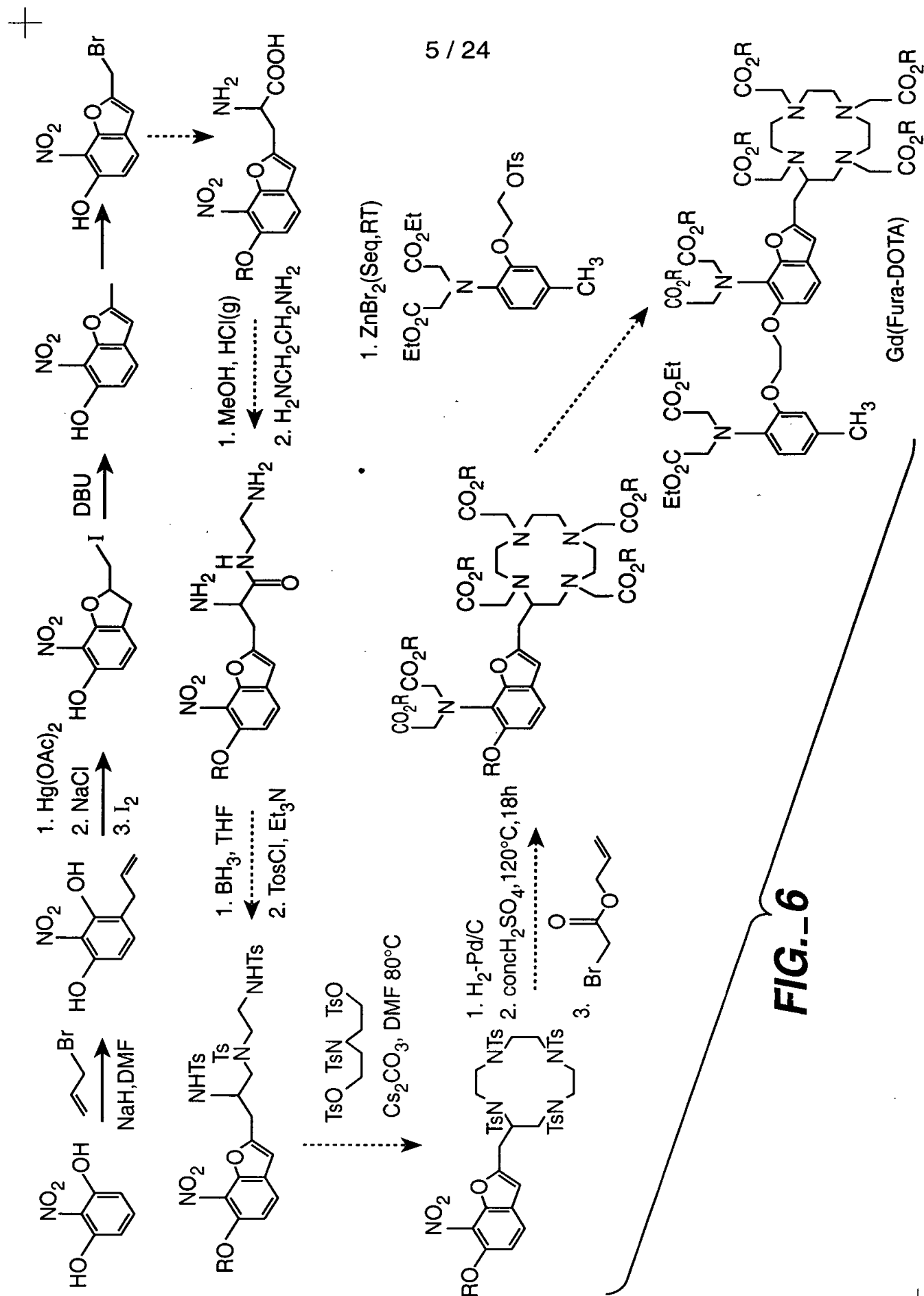
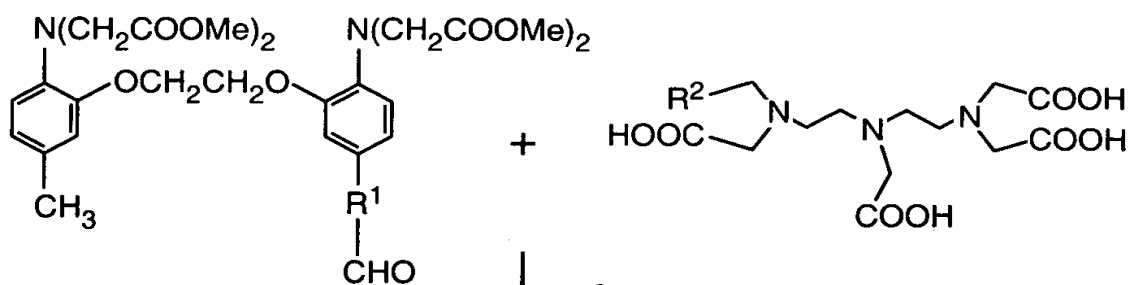


FIG. 5

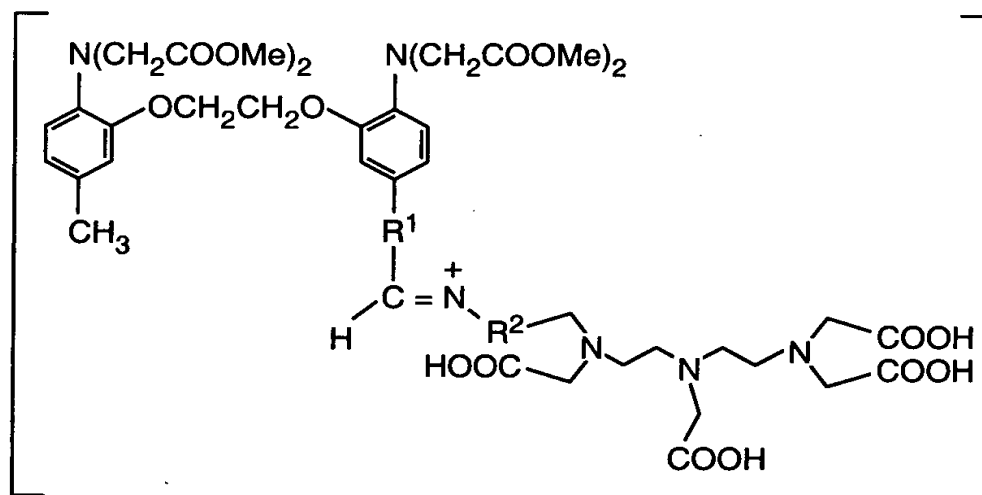
+



6 / 24



$$\text{R}^2 = \text{NH}_2(\text{R})\text{NCO}$$

$$\text{NaCNBH}_3$$


Rearrangement
 HPLC
 Gd(III)

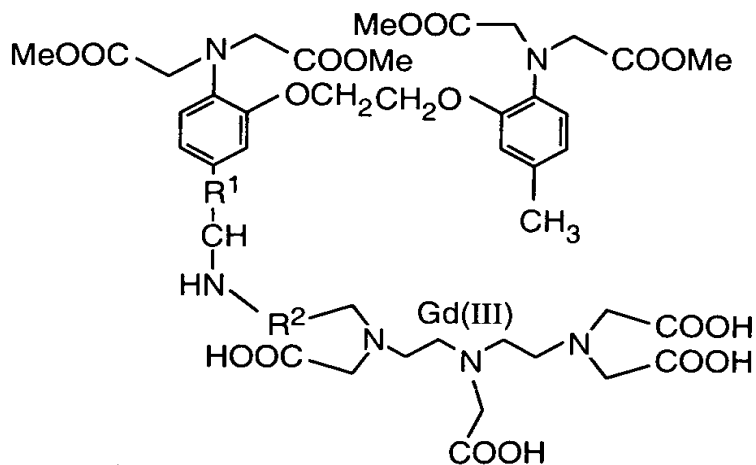
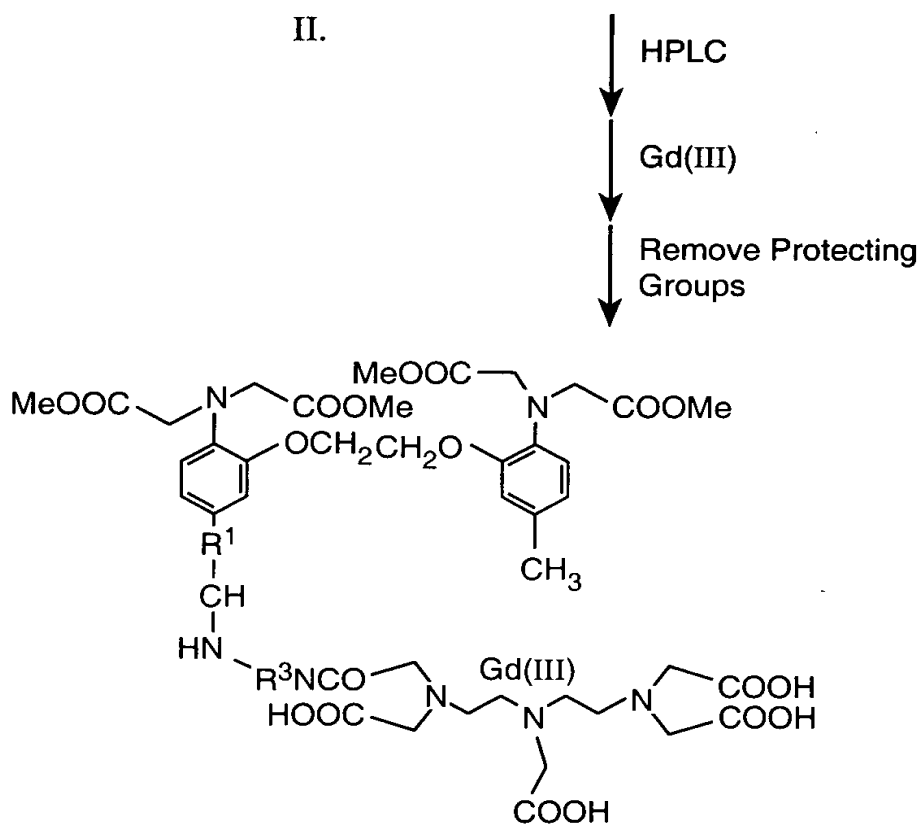


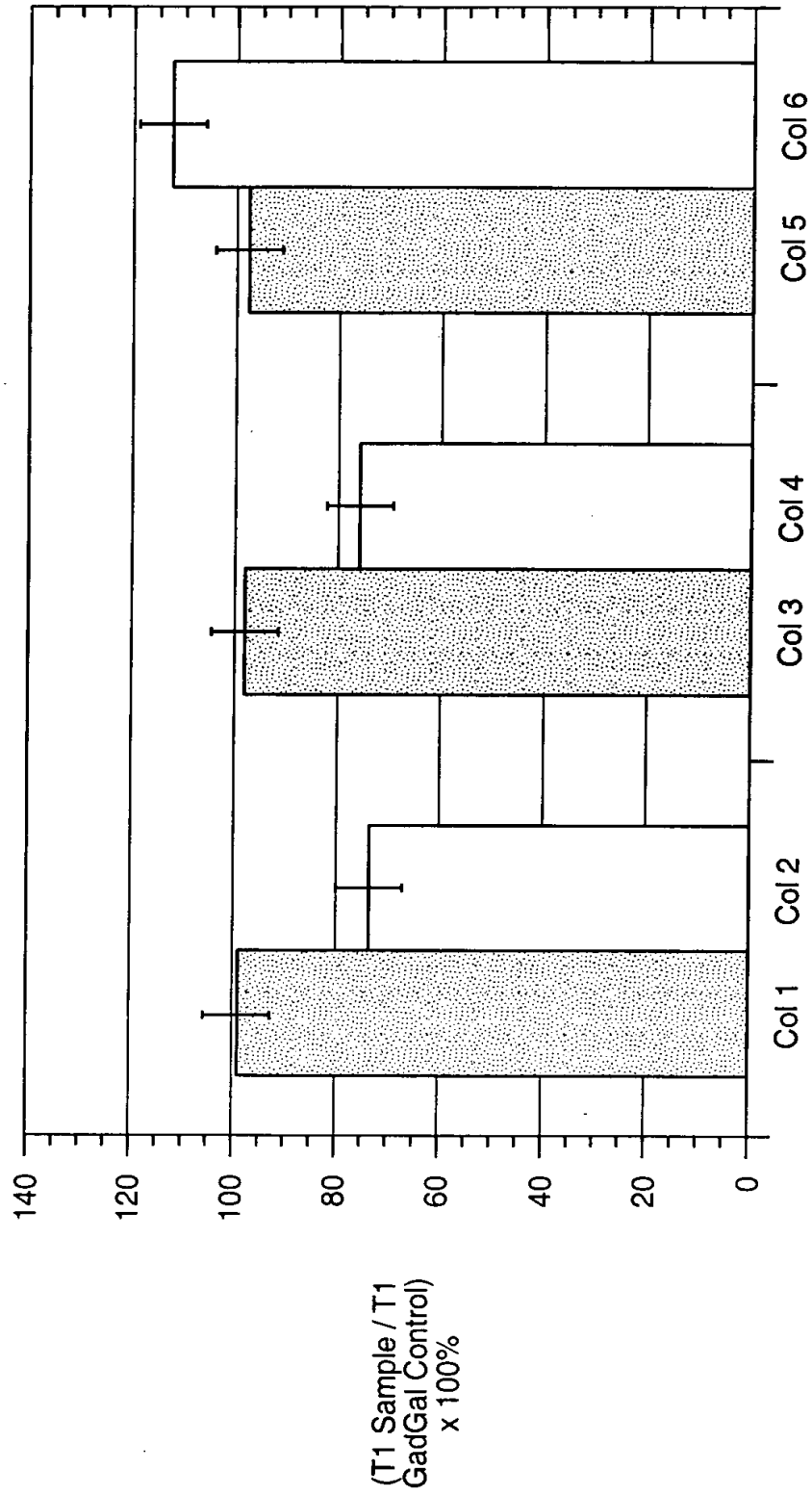
FIG. 7

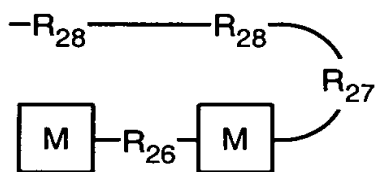
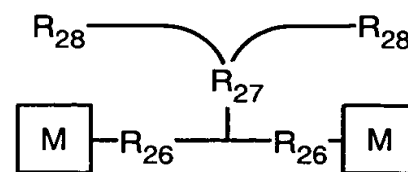
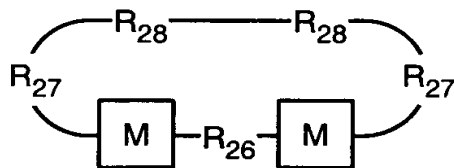
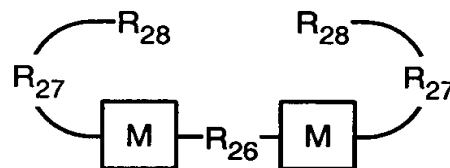
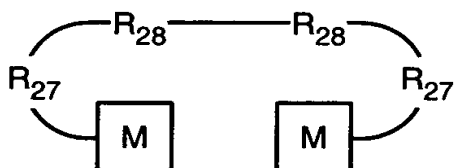
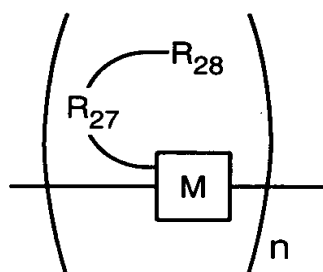
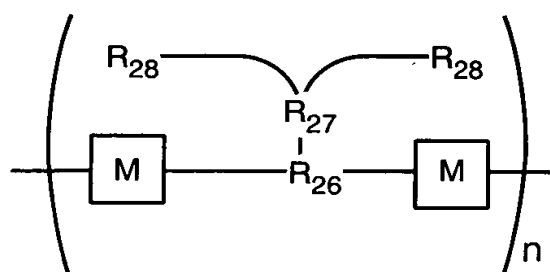
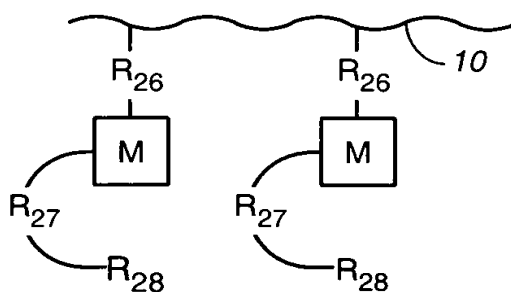
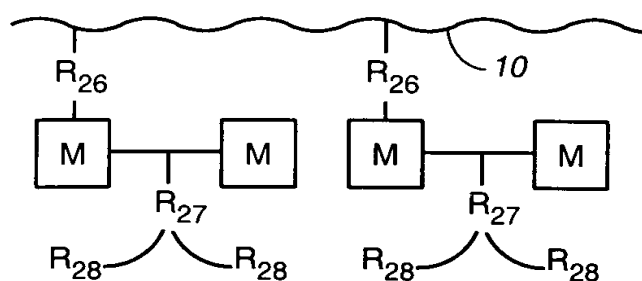
096651 031000



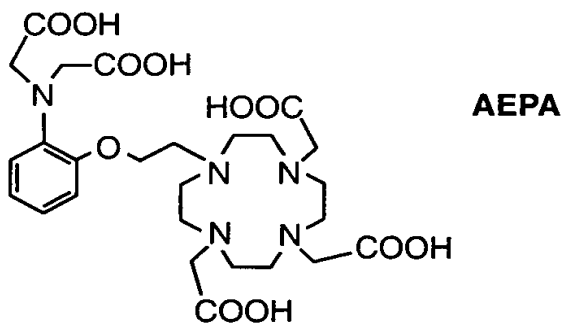
8 / 24

20E FEO" 215993650

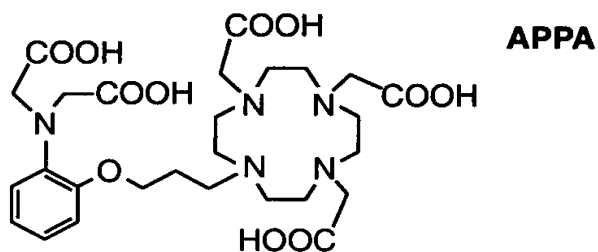
**FIG. 9**

**FIG. 10A****FIG. 10B****FIG. 10C****FIG. 10D****FIG. 10E****FIG. 10F****FIG. 10G****FIG. 10H****FIG. 10I**

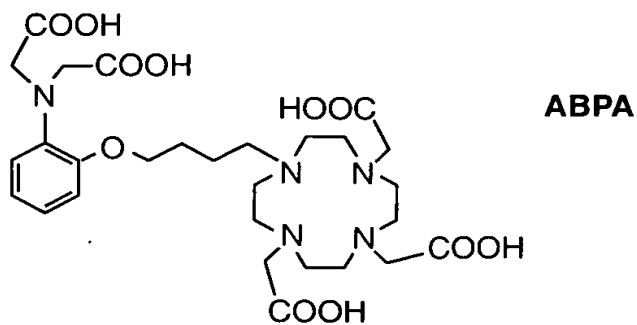
10 / 24



1-o-aminophenoxy-2-(cyclen)ethane-N,N,N',N'',N'''-pentaacetic acid

FIG._11A

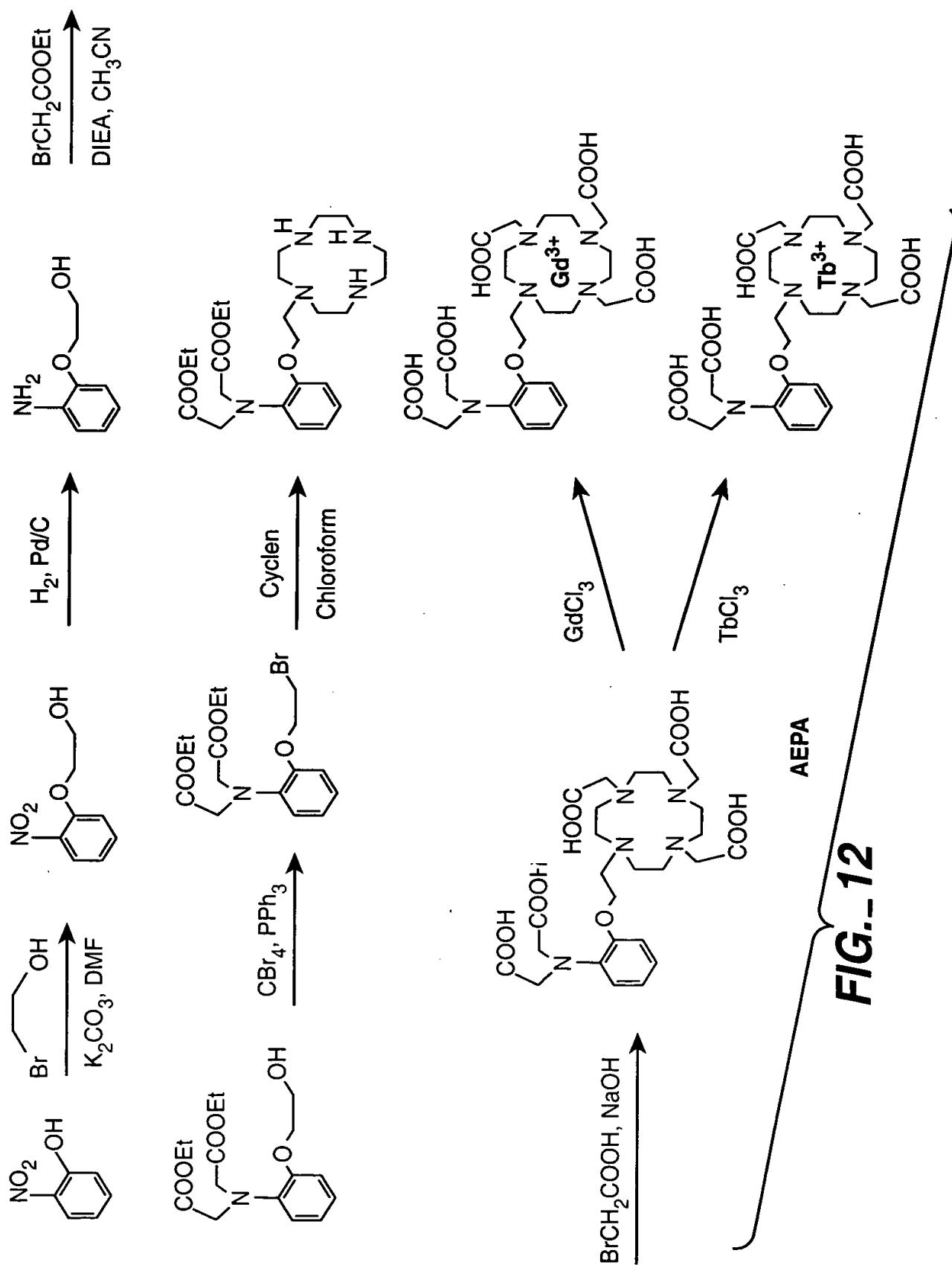
1-o-aminophenoxy-3-(cyclen)propane-N,N,N',N'',N'''-pentaacetic acid

FIG._11B

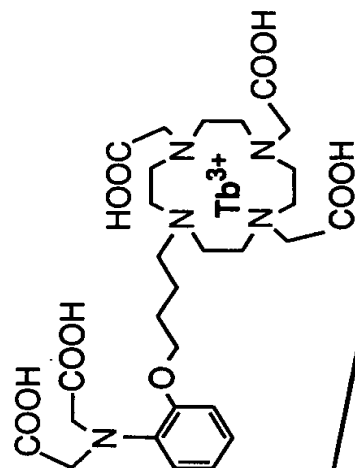
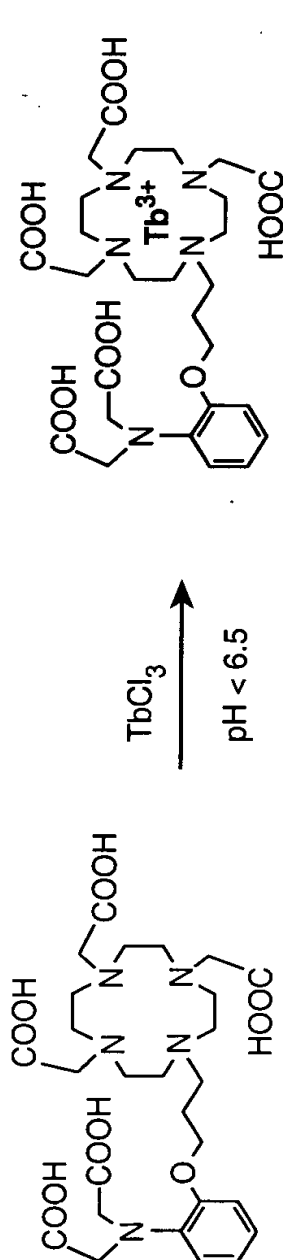
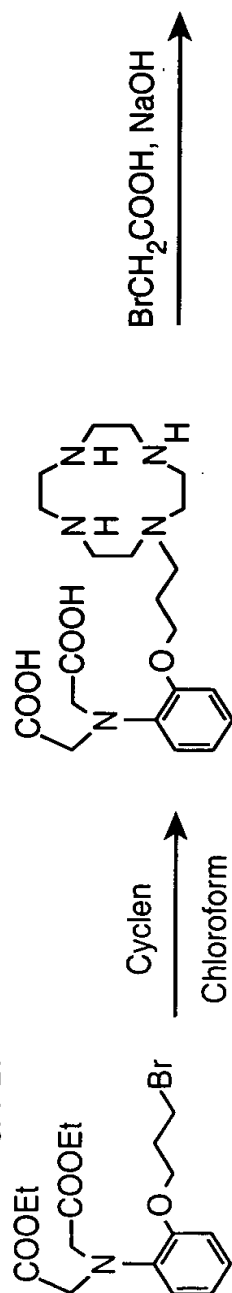
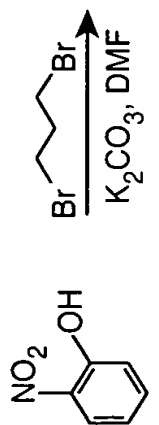
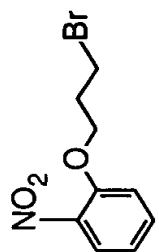
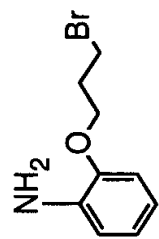
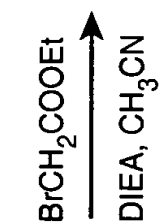
1-o-aminophenoxy-4-(cyclen)butane-N,N,N',N'',N'''-pentaacetic acid

FIG._11C

20250312 090651

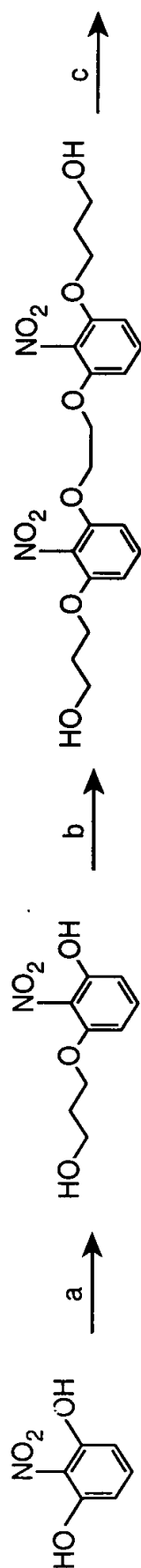


+

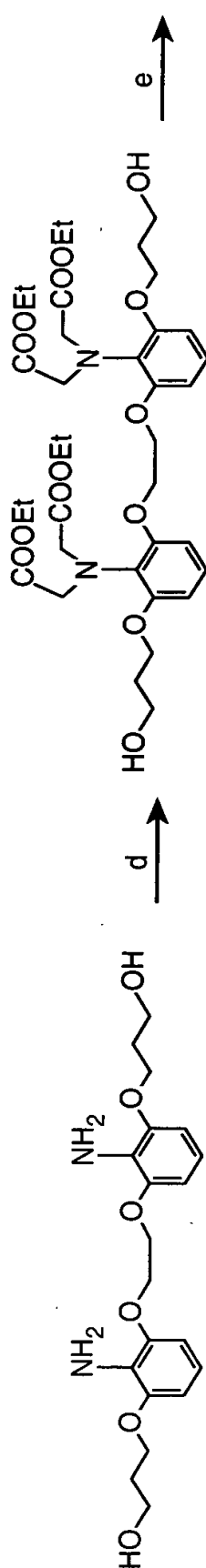


+

+

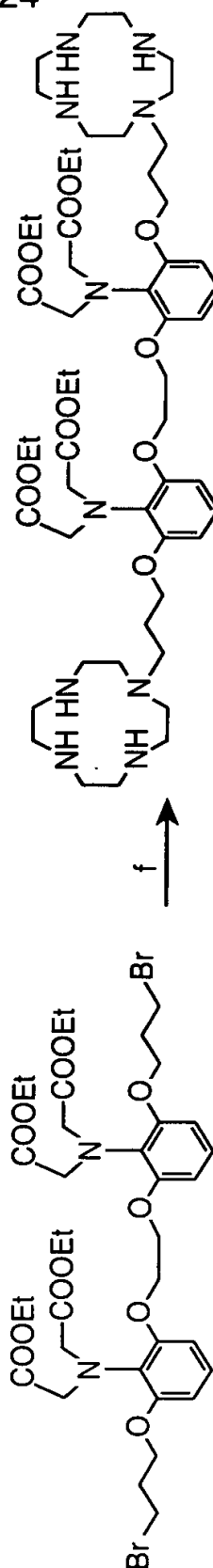


2



4

13 / 24



6

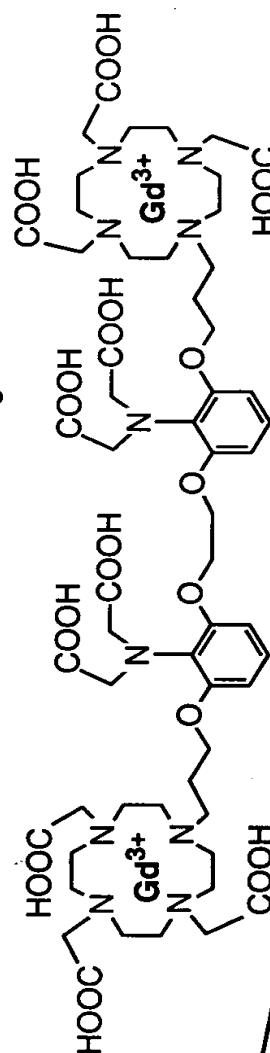
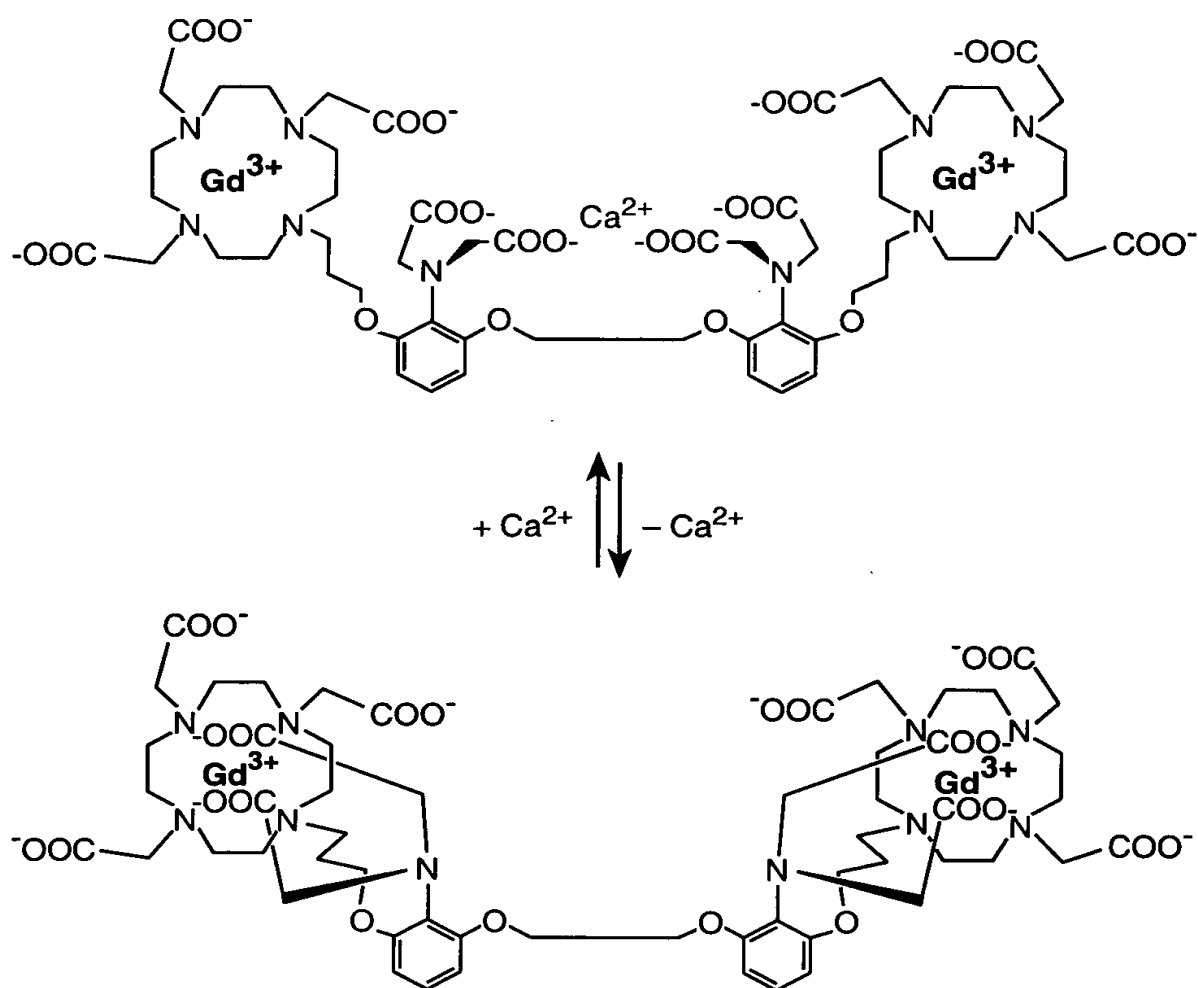


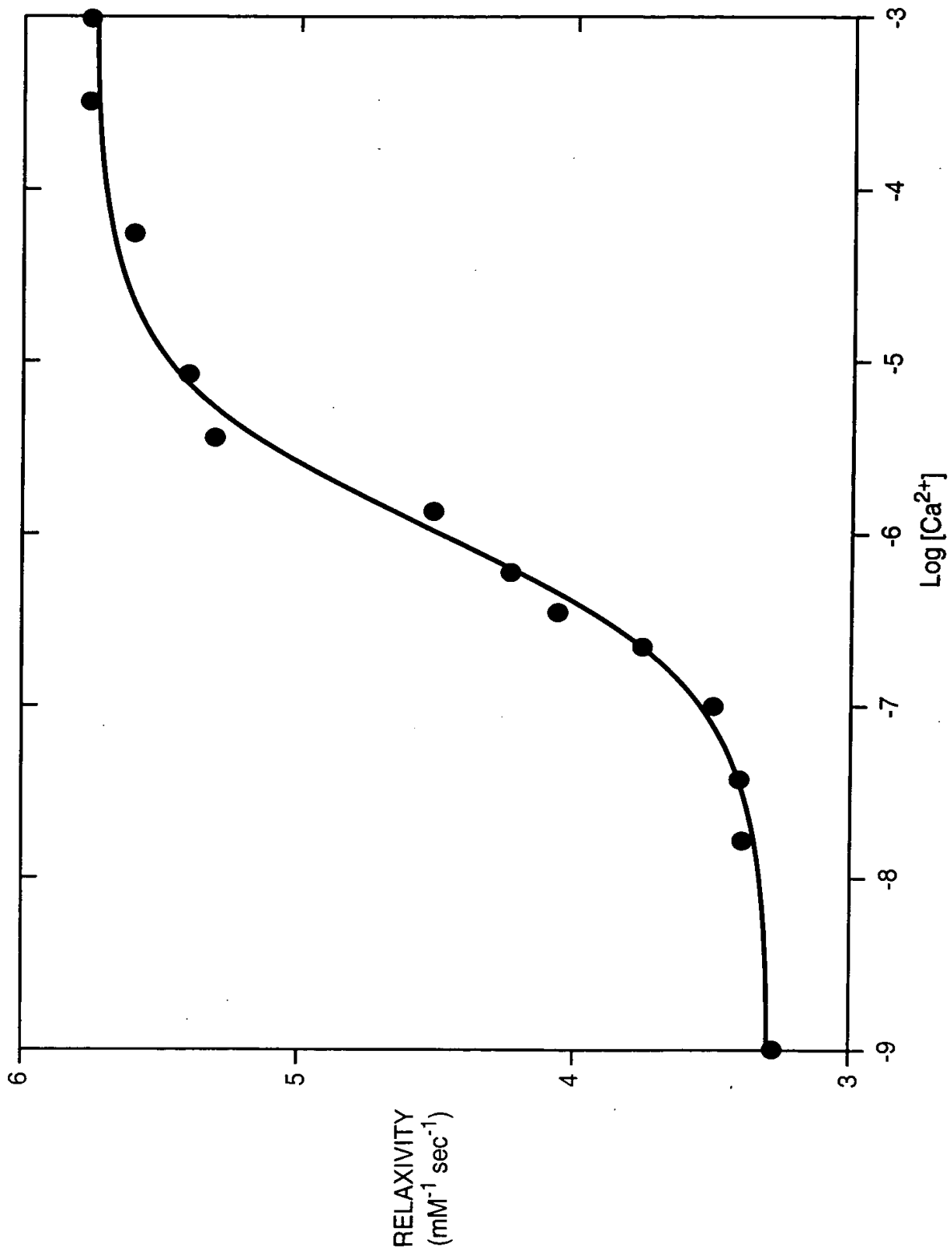
FIG. 14

+

**FIG. 15**

0986512-031302

0986512-034302

**FIG. 16**

09866512.031302

A-58634-7

16 / 24

-mRNA +mRNA

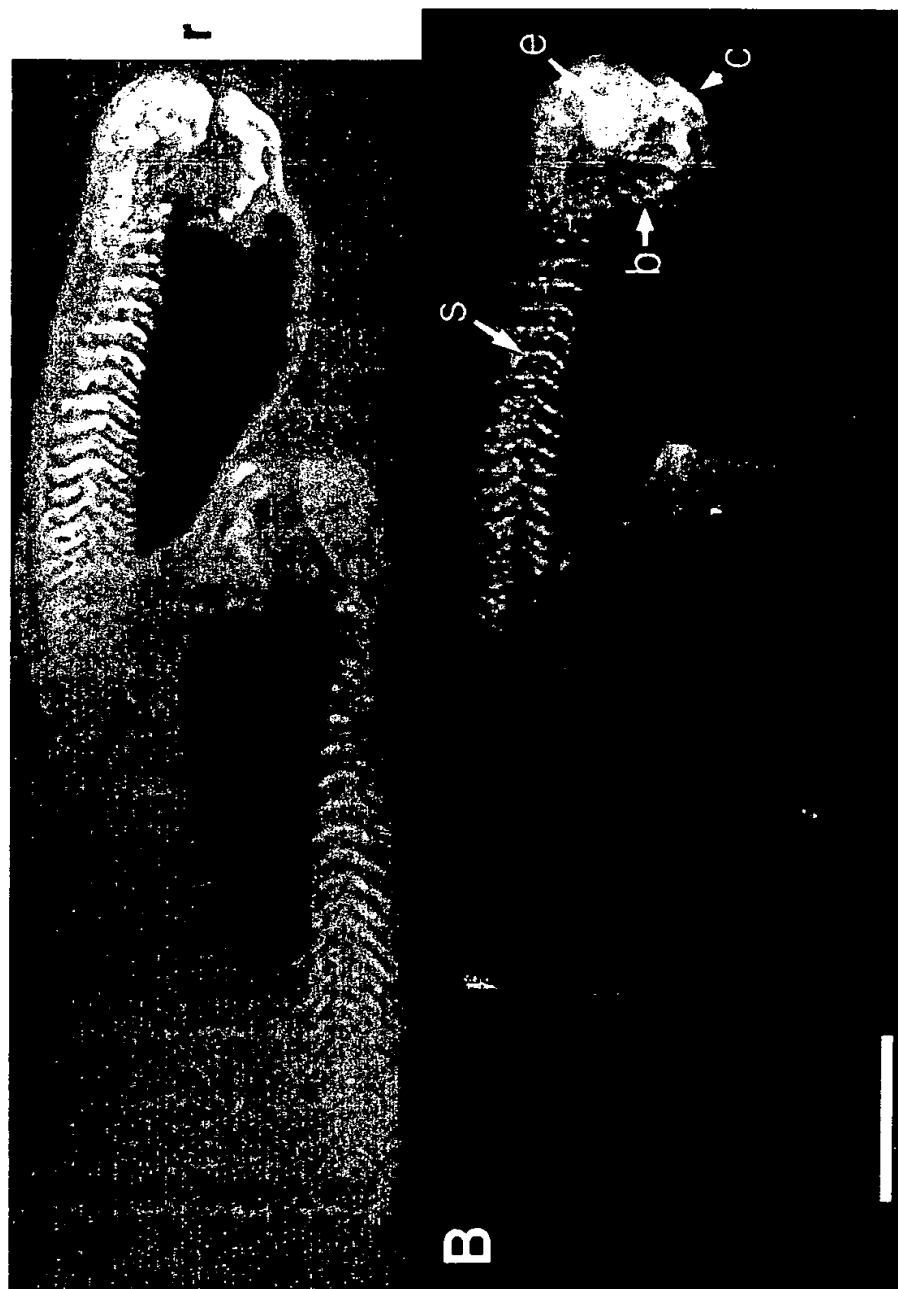


FIG.- 17

FIG._18A



FIG._18B

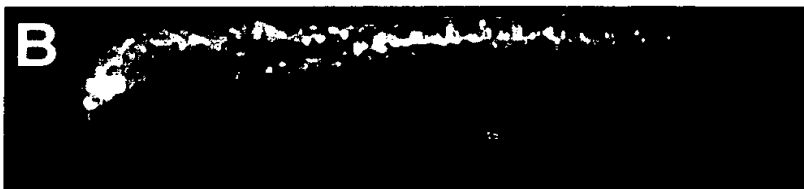


FIG._18C

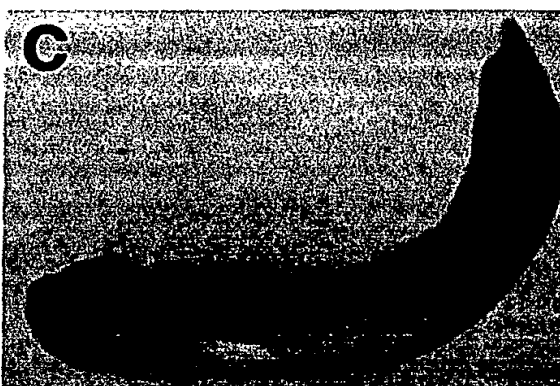


FIG._19A

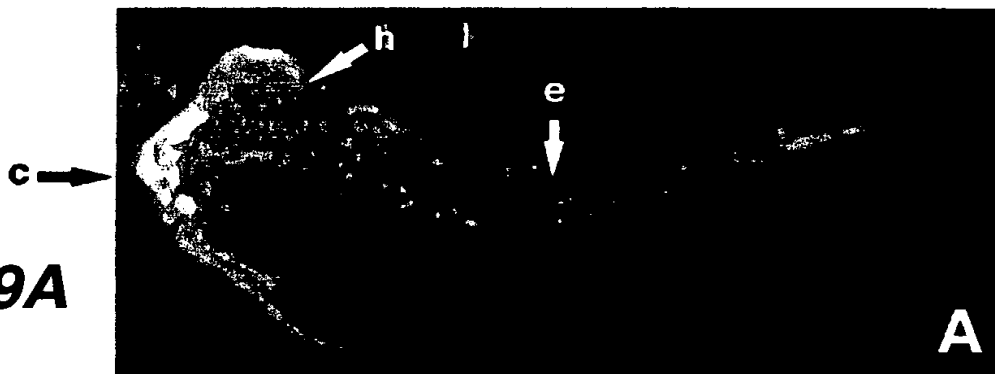
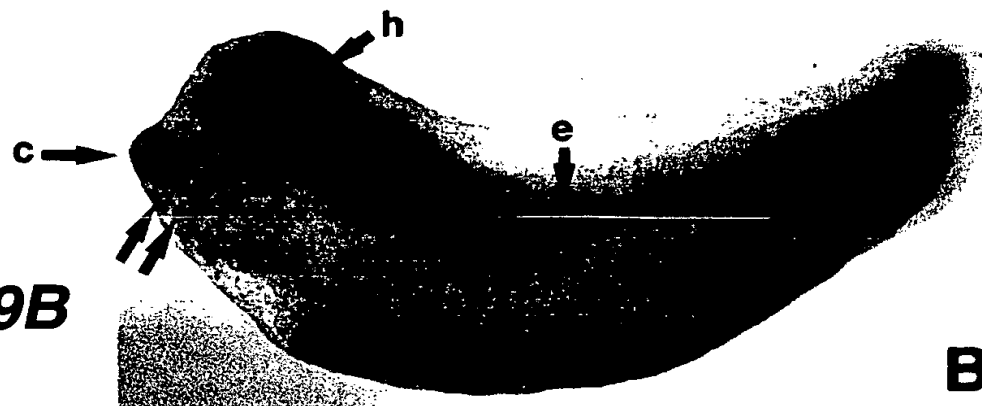


FIG._19B

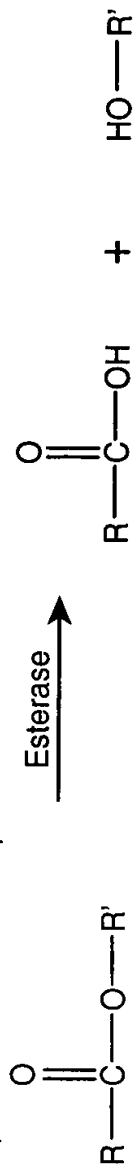


09866512.031302

Esterase Activation

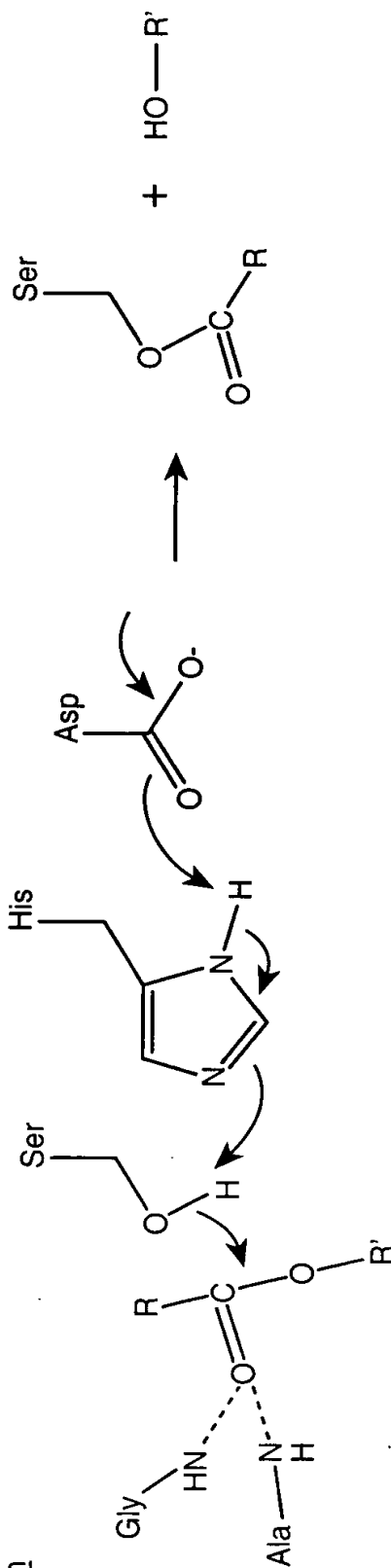
Properties of Carboxylesterases:

1. Efficient Cleavage of Ester Functional Groups



2. Belongs to the Family of Ser-His-Asp Active Site Enzymes (Serine Protease)

Acylation



Deacylation

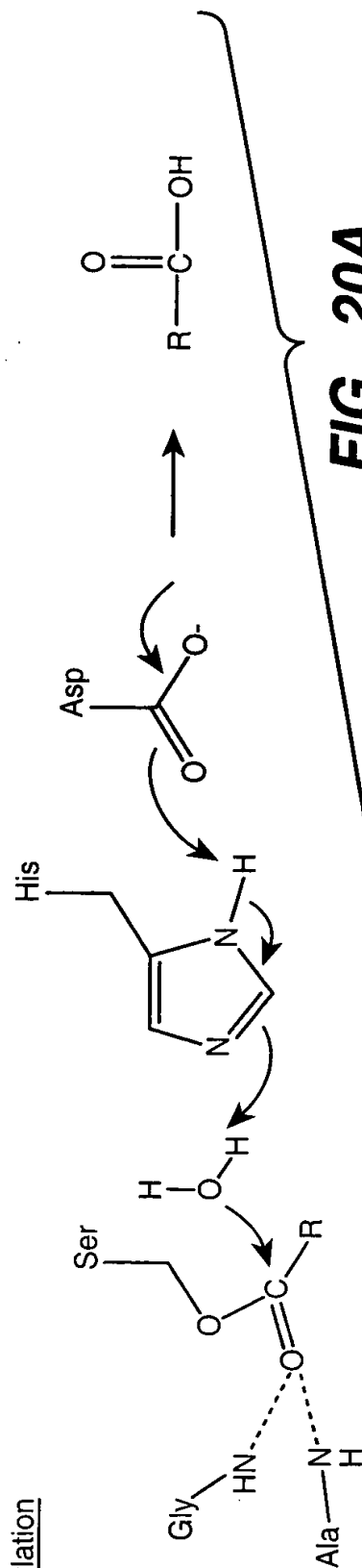


FIG. 20A

2025-10-27 15:59:36

(Acyloxy) Alkoxy Linker

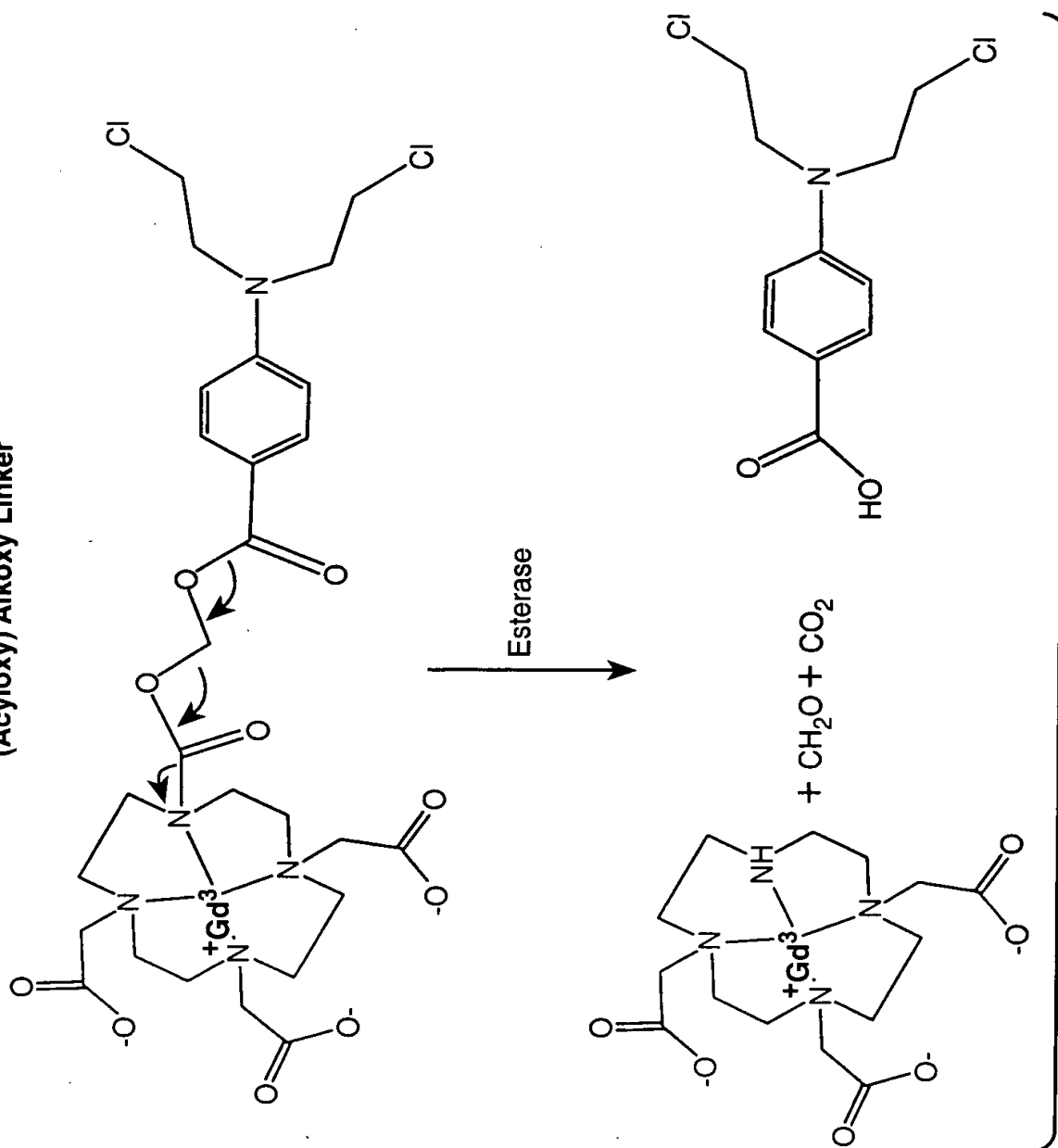
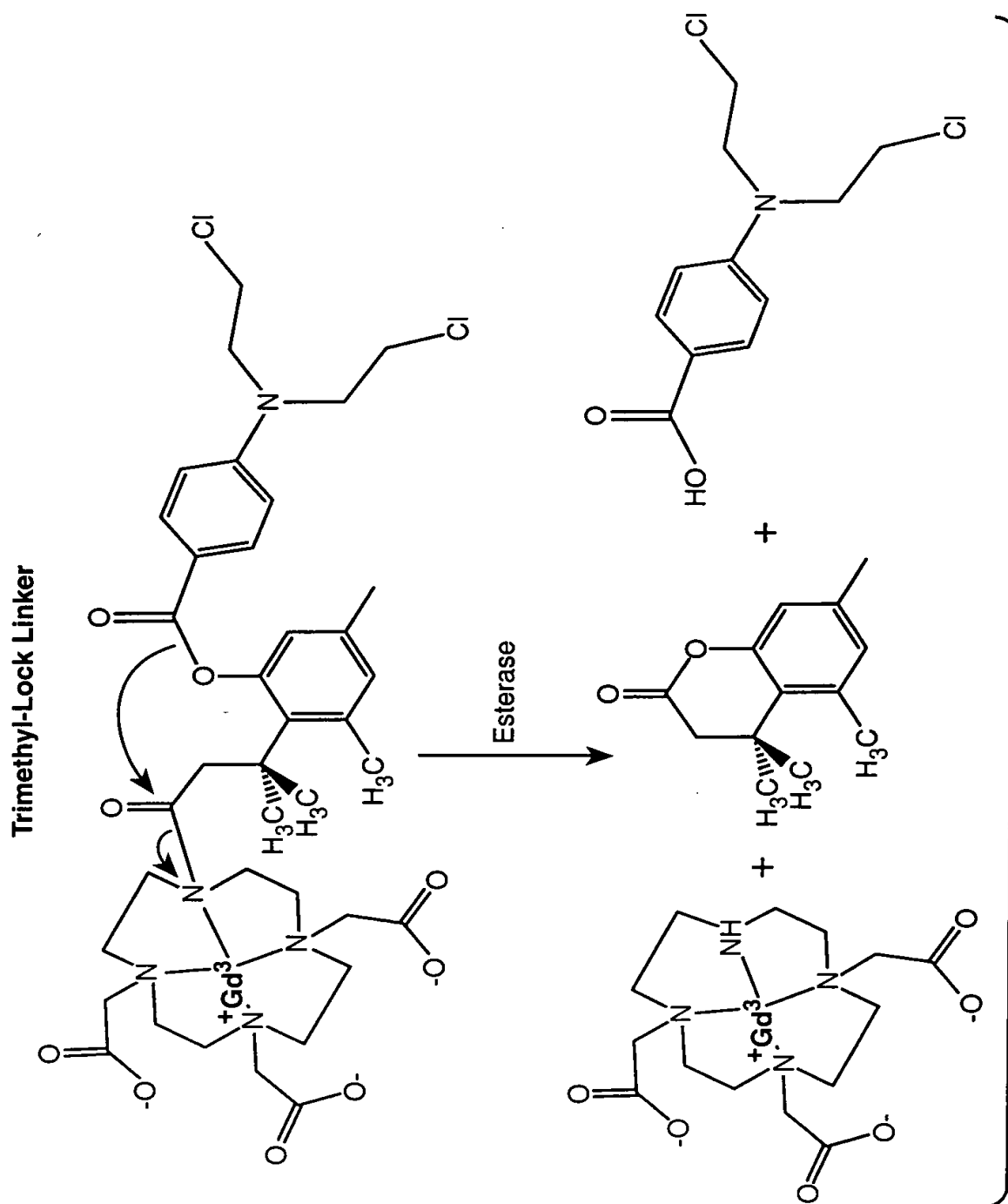


FIG. 20B



Ester Linkage II

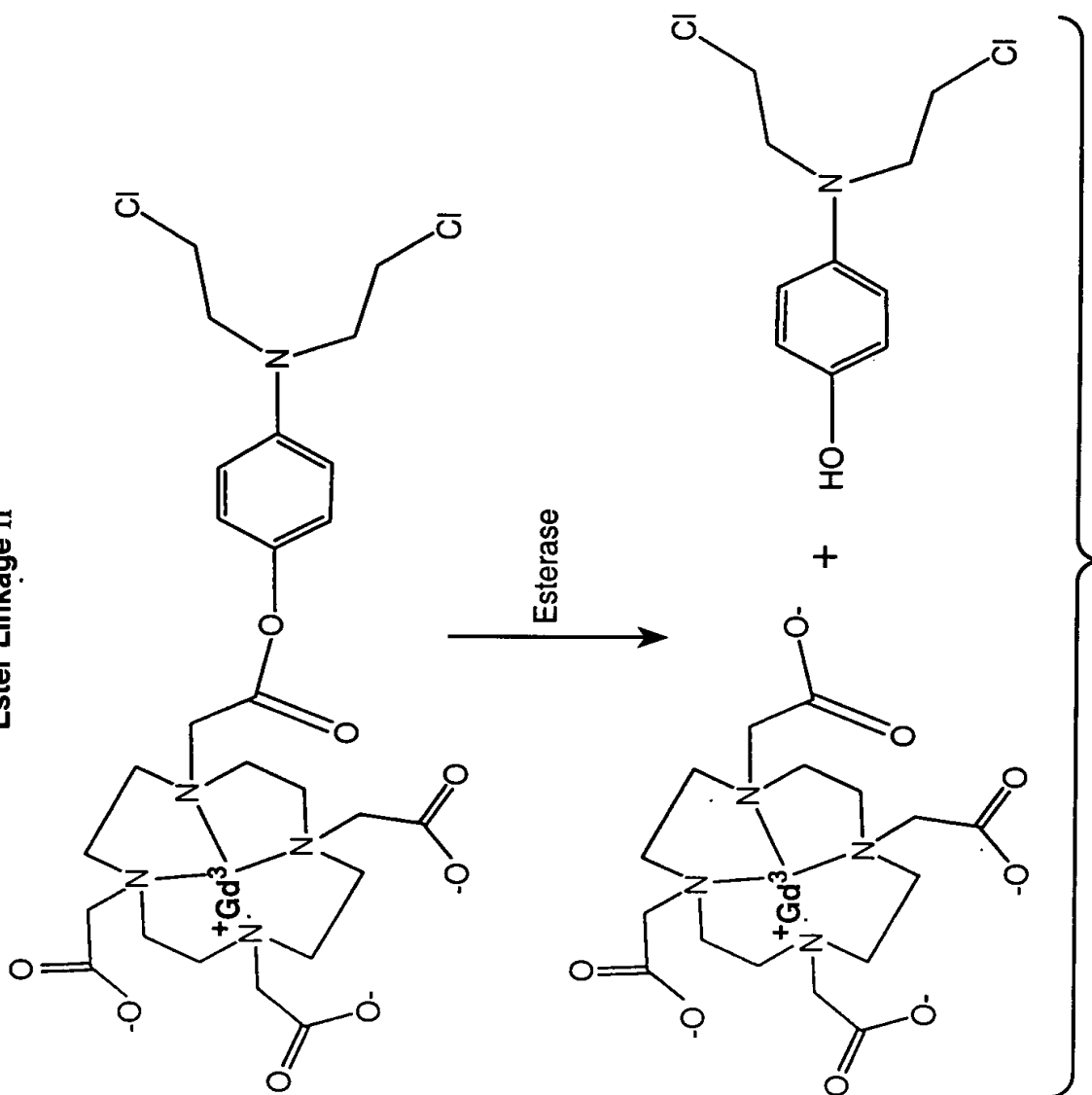
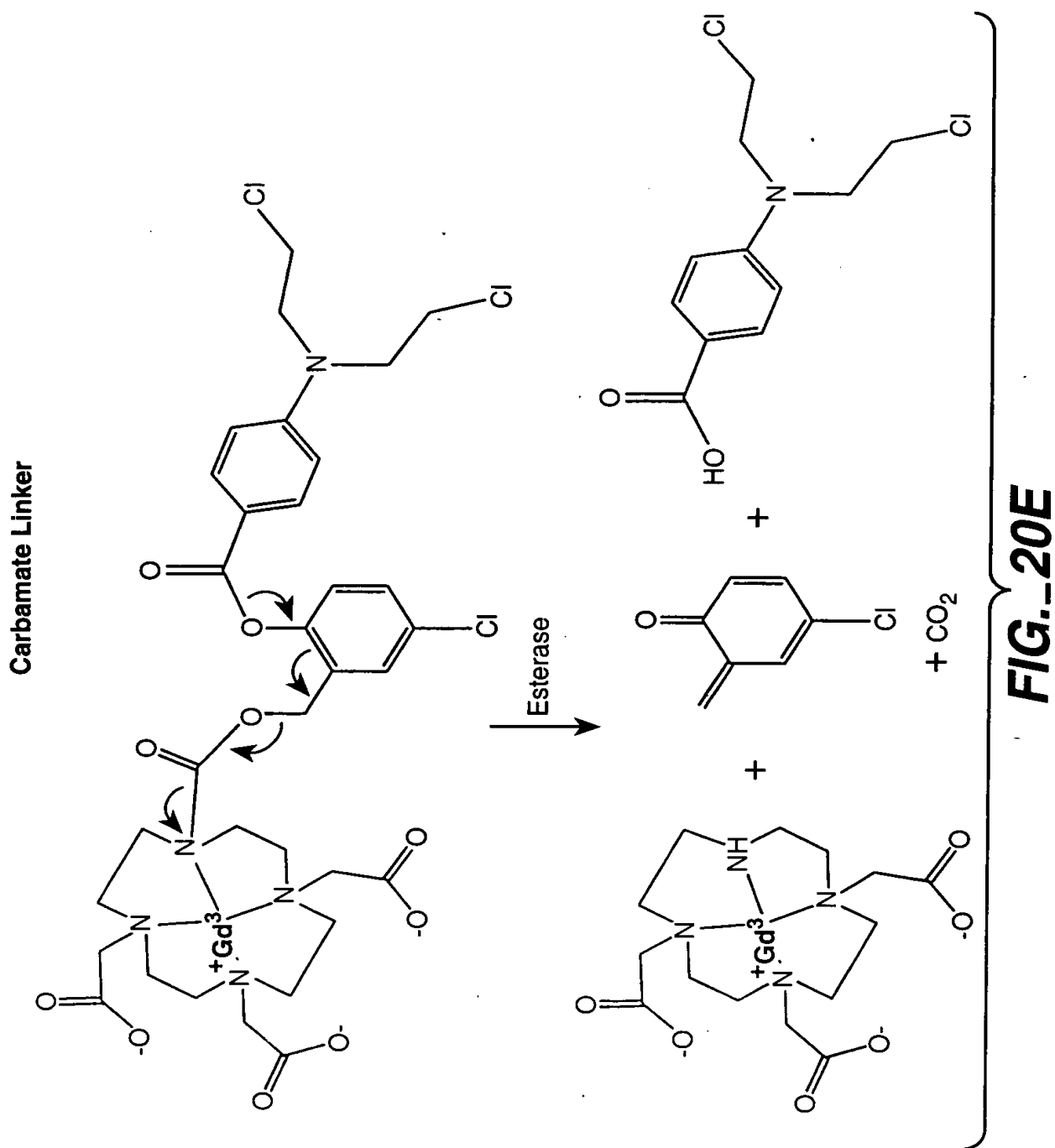


FIG. 20D



Fmoc Chemistry for Synthesis of Linker-peptide Unit

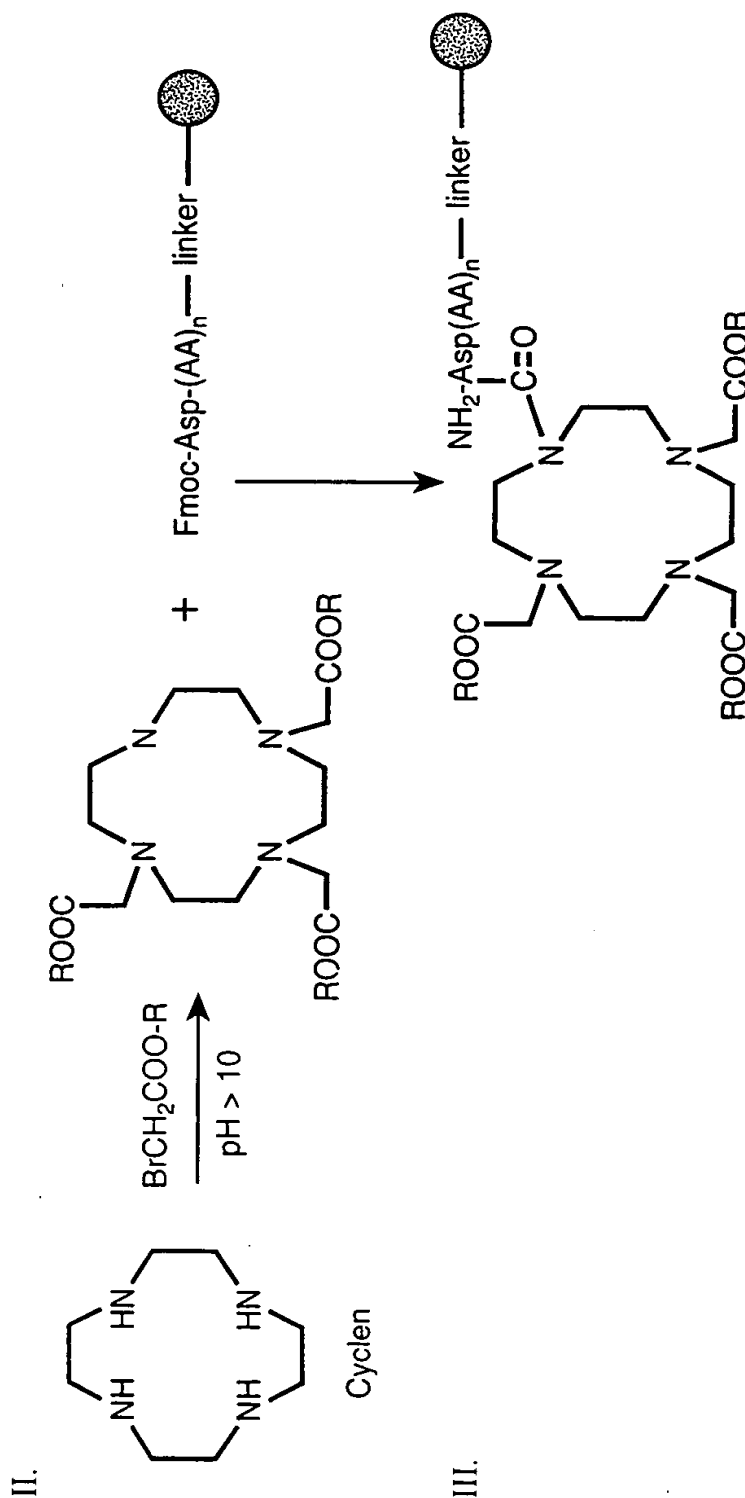
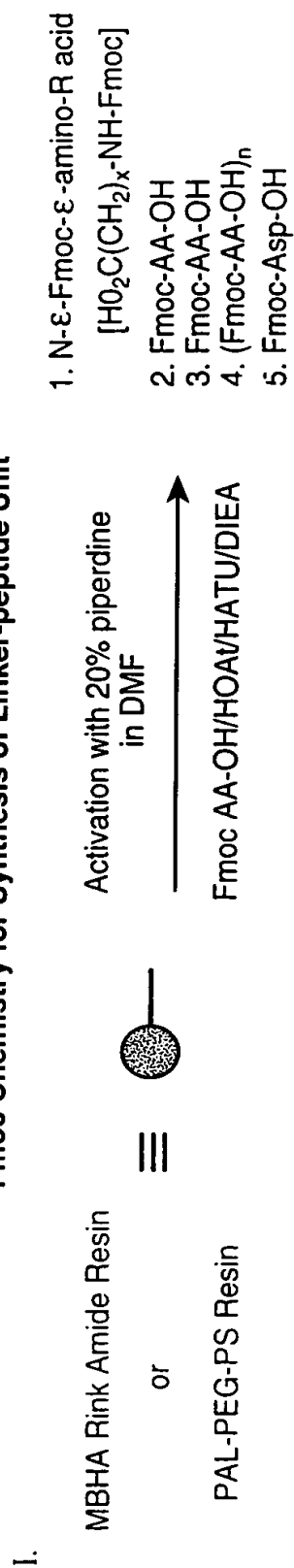
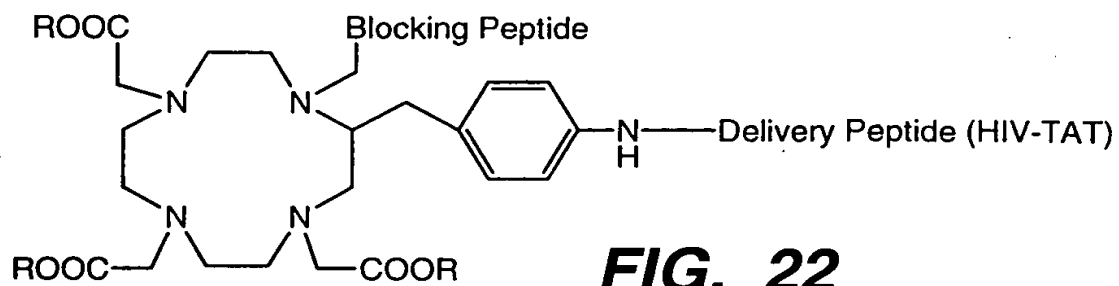
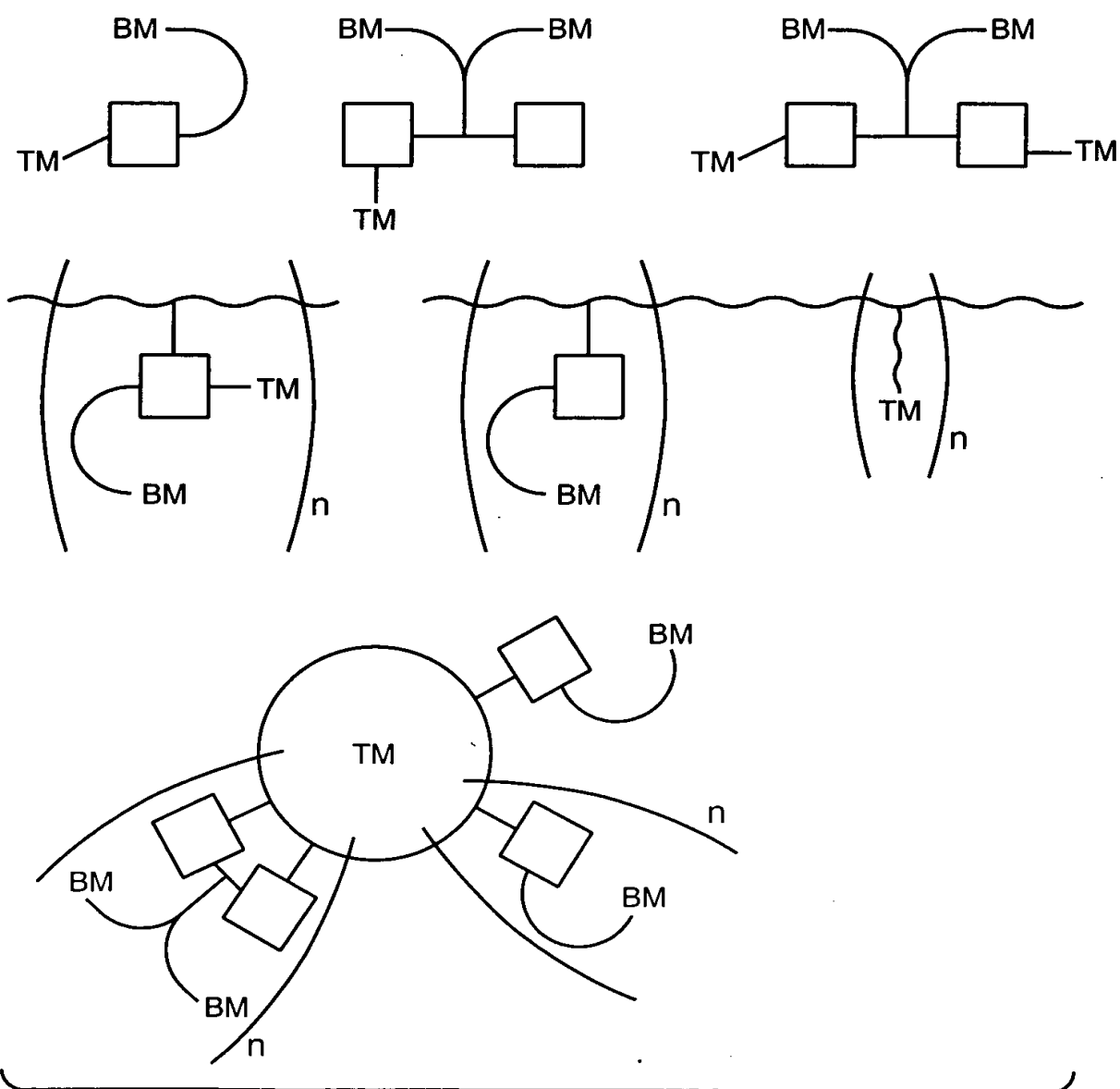


FIG. 21

**FIG. 22****FIG. 23**